

EXHIBIT A

***In Re: National Collegiate Athletic Association
Student-Athlete Concussion Injury Litigation***

**United States District Court
For the Northern District of Illinois
Eastern Division**

**MDL No. 2492
Master Docket No. 13-cv-09116**

**Expert Report
April 15, 2015**

**Prepared by
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I. Introduction and Summary of Opinions

I have been retained by the National Collegiate Athletic Association¹ in connection with the proposed Amended Class Action Settlement Agreement and Release² in the *National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*.³ The Proposed Class Settlement seeks to establish a “Medical Monitoring Program to benefit all persons who played an NCAA-sanctioned sport at an NCAA member institution through the date of preliminary approval, as well as changes to the NCAA’s return-to-play and concussion management policies and guidelines....”⁴ I was asked to analyze the financial adequacy of the funding for the Medical Monitoring Program, which I performed by evaluating the sources and uses of funds over time.

I reviewed information that the NCAA and its counsel provided to me, which included materials relating to the Class Action, the Proposed Class Settlement, and other documents described in the Data and Documents Considered in Attachment 1.

For the purposes of this review, my analysis is limited to the Medical Monitoring Program. At a high level, the Proposed Class Settlement Medical Monitoring Program will create a fund intended to last 50 years through \$70 million in total contributions by the NCAA.^{5,6} The \$70 million fund will establish a 50 year program whereby all current and former NCAA student-athletes will be eligible for voluntary screening for concussion-related illness and, where applicable under guidelines to be set by the Medical Science Committee, be further eligible for a Medical Evaluation. The \$70 million is also intended to provide for class counsel attorneys’ fees, Medical Science Committee costs, notice costs, administration fees, and other uses described herein.

Based on my analysis and the assumptions included herein, it is my opinion that the \$70 million Proposed Class Settlement will be adequate to provide benefits to Settlement Class Members who elect to participate in the Medical Monitoring Program for the next 50 years. My opinions, and the bases for those opinions, are set forth in this Report. I reserve the right to supplement this Report, if appropriate. Unless otherwise defined, capitalized terms in this Report shall take on the same meaning as those in the Proposed Class Settlement.

¹ Herein referred to as “NCAA”

² Herein referred to as “Proposed Class Settlement”

³ Herein referred to as “Class Action”

⁴ Amended Class Action Settlement Agreement and Release, Section I.

⁵ Throughout my Report, I refer to terms of the Proposed Class Settlement. My references are not intended to be exhaustive of every term, condition, and operation of the Proposed Class Settlement. Please refer to the Proposed Class Settlement for a complete set of terms and conditions.

⁶ I understand a \$5 million research fund will be established with funds separate and outside the scope of the \$70 million amount. I did not consider this component of the Proposed Class Settlement.

II. Employment and Professional Qualifications

I am qualified to render the opinions expressed herein due to my education, training, knowledge, and experience in the fields of mass tort claims analysis and estimation.

I am a Managing Director in the Disputes, Claims and Investigations group at The Claro Group, LLC (“Claro”). Among other services, Claro’s professionals provide support for clients on complex business disputes and litigation. Claro’s team of CPAs, MBAs, and finance professionals has deep experience analyzing asbestos, pollution, and human health (collectively, “APH”) claims. Concussion litigation claims are representative of the types of claims Claro frequently addresses in the APH area. Our expertise in APH claim disputes includes claims quantification, damages calculations, claims estimation, and insurance policy allocation services over a wide range of situations, including expert testimony.

I earned a BS in Finance from the University of Illinois at Urbana-Champaign in 1992 and an MBA from the University of Chicago in 2000. During my career I have been a Senior Manager at Arthur Andersen LLP, a Principal at LECG, LLC, and am currently a Managing Director at Claro. For most of my career I have focused on financial consulting services, specializing in complex insurance claims relating to APH issues. I have given expert testimony at trials, mediations, and depositions. My curriculum vitae is attached hereto as Attachment 2.

Over the course of my professional career, I have been retained on many claim matters requiring financial estimates, including class actions. My role varies but typically includes expenditure analysis, risk estimation, and insurance policy allocation calculations. Although every matter has its own specific set of facts and circumstances, the estimation analysis I performed for the NCAA relies upon standard methodologies and concepts typically utilized in these types of analyses. In this capacity, I have performed many claim estimates analogous to the Medical Monitoring Fund adequacy analysis I performed for the NCAA.

III. Methodology and Analysis

A. Medical Monitoring Fund Operation

a. Sources of Funds

The Proposed Class Settlement establishes a Medical Monitoring Fund⁷ to provide benefits to the Class. There are two primary sources of monies for the Fund: (i) cash commitments from the NCAA and (ii) investment returns. The Proposed Class Settlement also provides for potential “replenishment” through subrogation by the Fund against private insurance.

⁷ Herein referred to as the “Fund.”

The NCAA's commitment is \$70 million. The settlement amounts will be funded as follows:⁸

- (i) \$5,000,000 paid within 14 days after the Preliminary Approval Date
- (ii) \$25,000,000 paid within 30 days after the Effective Date
- (iii) \$20,000,000 paid on the 1st day of the 11th year after the Effective Date
- (iv) \$20,000,000 paid on the 1st day of the 21st year after the Effective Date
- (v) The Fund will have a \$2,000,000 minimum balance requirement that must be maintained by NCAA and that can trigger early payments if the \$2,000,000 balance is not maintained.

The Fund will invest available monies in relatively conservative investments. It will be able to invest in "short-term and long-term United States Agency or Treasury Securities (or a mutual fund invested solely in such instruments) or other similar short-term and long-term United States government obligations."⁹ While future investment returns for the Fund are unknown, I reviewed Morningstar research of short-term and intermediate-term government bond portfolio returns.^{10, 11} Based on this review, I utilized an annual return estimate of 3% to calculate potential future investment returns on the Fund.

The Fund also will have the right to "pursue subrogation or reimbursement from Qualifying Class Members' private health insurance for the cost of Medical Evaluations"¹² with limitations including prohibitions on certain Medicare and Medicaid claims. However, it is not known at this time if private health insurance will agree to reimburse the Fund for Medical Evaluations, much less make it cost efficient for the Fund to pursue. As such, I did not include recoveries from private insurance subrogation in this adequacy analysis, though it is quite possible that subrogation could help replenish monies spent from the Fund.

b. Uses of Funds

The Fund is designed to operate for 50 years and provide defined medical monitoring benefits to Qualifying Class Members who played an NCAA-sanctioned sport at an NCAA member institution and who suffer certain ongoing medical conditions resulting from concussions and/or subconcussive hits.¹³ The Fund will be administered by a Program Administrator with medical monitoring criteria established by the Medical Science Committee. A critical element of the Fund's operation will be the establishment of a Screening Questionnaire that will be administered to Settlement Class Members who voluntarily seek benefits from the

⁸ Amended Class Action Settlement Agreement and Release, Section IV. A. 1.

⁹ Amended Class Action Settlement Agreement and Release, Section IV. A. 1. f.

¹⁰ "Short Government: Total Returns." *Morningstar*. Web. 6 Apr. 2015. <[http://news.morningstar.com/fund-category-returns/short-government/\\$FOCA\\$GS.aspx](http://news.morningstar.com/fund-category-returns/short-government/$FOCA$GS.aspx)>.

¹¹ "Intermediate Government: Total Returns." *Morningstar*. Web. 6 Apr., 2015. <[http://news.morningstar.com/fund-category-returns/intermediate-government/\\$FOCA\\$GI.aspx](http://news.morningstar.com/fund-category-returns/intermediate-government/$FOCA$GI.aspx)>.

¹² Amended Class Action Settlement Agreement and Release, Section IV. B. 5.g.

¹³ Amended Class Action Settlement Agreement and Release, Section IV. B. 5.

Fund. Only Settlement Class Members exhibiting the appropriate medical symptoms as determined by the Screening Questionnaire will qualify for a Medical Evaluation. Settlement Class Members are able to retake the Screening Questionnaire and may receive multiple Medical Evaluations based on protocols set forth in the Proposed Class Settlement.

Based on this anticipated Fund structure, the uses of funds fall into two broad categories: (1) the Medical Evaluation cost estimate, which is dependent on the number of Qualifying Class Members that claim-in; and (2) other costs provided for under the Settlement Agreement, such as the award of attorneys' fees to class counsel, notice costs, and costs associated with administering the Medical Monitoring Program ("Other Costs"). The majority of Other Costs are fixed; however, certain administration costs will be variable based on the number of total class members that claim-in.

Settlement Class Member Population Estimate

The Settlement Class Member population is comprised of current and former NCAA student-athletes who are still alive. The exact number of NCAA student-athletes participating in each historical academic year was not tracked by NCAA or any other institution of which the NCAA or I am aware. As a result, I utilized NCAA student-athlete data by sport by year that the NCAA began tracking in 1981. To estimate participation rates for academic years not tracked by the NCAA, I employed a linear regression methodology based on known population data. I did not need to estimate female student-athletes before 1981 as the NCAA did not govern women's collegiate athletics prior to 1981.

Based on this analysis, I estimate 4,930,495 current and former student-athletes for all NCAA sports including contact and non-contact sports, before adjustments for mortality. After adjusting for expected mortality,¹⁴ I estimate 4,219,919 living Settlement Class Members. Table 1 summarizes the estimated Settlement Class Member population by gender and type of sport. See Attachment 3 for additional support for the estimate.

Table 1. Settlement Class Member Population by Gender and Sport

Sport	Men	Women	Total
Contact	1,408,796	386,388	1,795,184
Non-Contact	1,459,022	965,713	2,424,735
Total	2,867,818	1,352,101	4,219,919

Qualifying & Non-Qualifying Class Member Estimate

The number of Settlement Class Members who qualify for Medical Evaluations will depend on the Screening Questionnaire and criteria developed by the Medical Science Committee. Eligibility will be determined via the Screening Questionnaire which "will be, and

¹⁴ "Period Life Table, 2009" *Actuarial Life Table*, Social Security Administration. Web. 21 Jan. 2014.

is designed to assess... problems that may be associated with persistent post-concussion syndrome and/or mid- to late-life onset problems, such as Chronic Traumatic Encephalopathy (“CTE”) and related disorders.”¹⁵

To estimate concussion rates by sport, I relied upon concussion incidence data tracked by the NCAA Injury Surveillance Program from 2009-2012. These concussion rates are based on reported concussions and were adjusted for student-athletes with more than one concussion. A validation study performed on the NCAA Injury Surveillance System found that the observed capture rate of injury was close to 90%.¹⁶ To account for underreporting of concussions, I conservatively assume that concussions are underreported by 10%.

Table 2 summarizes the estimated number of concussed Settlement Class Members. See Attachment 4 for additional support for the estimate.

Table 2. Settlement Class Member Concussions by Sport

Sport	Not Concussed	Concussed	Total
Contact	1,534,780	260,404	1,795,184
Non-Contact	2,359,606	65,129	2,424,735
Total	3,894,386	325,533	4,219,919

It is my understanding the vast majority of concussion symptoms resolve shortly after the concussive event, and very few concussions lead to post-concussion syndrome (“PCS”), CTE, or other disorders. Based on unresolved or late onset concussion symptom rates reported in recent clinical studies,¹⁷ I estimated the number of student-athletes with unresolved or late onset concussions symptoms (i.e., the number of Qualifying Class Members) to be 5% - 7.5% of concussed Settlement Class Members.

In addition to providing Medical Evaluations to Qualifying Class Members, the Proposed Class Settlement provides additional screening for Settlement Class Members that meet the “impaired” threshold on the mood and behavior measures of the Screening Questionnaire, but that do not qualify for a Medical Evaluation. These class members will be further screened via telephone by a trained professional or will be referred to a mental health specialist outside of the Medical Monitoring Program (“Supplemental Depression Screening”). Based on statistics reported by the CDC and National Institutes of Health, I estimate the

¹⁵ Amended Class Action Settlement Agreement and Release, Section IV. B. 4.

¹⁶ Kucera, Kristen L., PhD, MSPH, LAT, ATC, et al. “Validity of Soccer Injury Data from the National Collegiate Athletic Association’s Injury Surveillance System.” *Journal of Athletic Training*. 2011;46(5):517-526.

¹⁷ See Attachment 1 for documents I reviewed.

prevalence of moderate to severe depression among non-Qualifying Class Members to be 7.5%.¹⁸

Table 3 summarizes the estimated number of Qualifying and non-Qualifying Class Members, as well as Settlement Class Members estimated to be eligible for Supplemental Depression Screening.

Table 3. Qualifying and Non-Qualifying Class Members and Settlement Class Members Eligible for Supplemental Depression Screening

			Non-Qualifying Class Members		Qualifying Class Members	Total
			Not Concussed	Concussed with Resolved Symptoms	Concussed with Unresolved Symptoms	
Unresolved Concussion Rate	5%	Contact Sports	1,534,780	247,384	13,020	1,795,184
		Non-Contact Sports	2,359,606	61,873	3,256	2,424,735
		Total	3,894,386	309,257	16,277	4,219,919
		Eligible for Supplemental Depression Screening (7.5% of Non-Qualifying Class Members)*	292,079	23,194	0	315,273
	7.5%	Contact Sports	1,534,780	240,874	19,530	1,795,184
		Non-Contact Sports	2,359,606	60,244	4,885	2,424,735
		Total	3,894,386	301,118	24,415	4,219,919
		Eligible for Supplemental Depression Screening (7.5% of Non-Qualifying Class Members)*	292,079	22,584	0	314,663

*Qualifying Class Members assumed to be eligible for Medical Evaluation and therefore are not eligible for Supplemental Depression Screening.

Settlement Class Member Claim-In Estimate

After estimating the Settlement Class Member population and number of Qualifying Class Members, I apply a claim-in rate. Based on a review of other class action settlements, it is likely that the number of Settlement Class Members who choose to complete a screening questionnaire will be low relative to the total Settlement Class Member population. I reviewed more than 20 class action settlements with public data to observe claim-in rates. Claim-in rates ranged from less than 1% up to nearly 25%.¹⁹ All but one have a claim-in rate less than 10%, while the vast majority are less than 5%. The availability of published claim-in rates for medical monitoring class actions is limited and, as such, the majority of comparables are class actions that provided a monetary benefit.

The observed upper bound claim-in rate in the literature was a medical monitoring class settlement relating to the Fernald Medical Monitoring Program. This medical monitoring program differs from that outlined in the Proposed Class Settlement in at least two key ways: 1) the Fernald Class was limited to a small population of residents who lived or worked in close proximity to a uranium plant in Ohio and 2) the medical monitoring program provided a

¹⁸ See Attachment 1 for documents I reviewed.

¹⁹ The exact class size for the class action settlement representing the observed upper bound claim-in rate is not known. The claim-in rate ranges from 18.37% to 24.29%, depending on the class size estimate used in the calculation.

comprehensive current health evaluation for eligible class members, and was not designed to test for a specific disease or condition.

This Class Action has generated press coverage and will receive more attention than most other class action settlements. As a result, I conservatively estimate that the Qualifying Class Member claim-in rates will bias towards the upper end of a reasonable range, at 15% - 25%. I estimate that the non-Qualifying Class Member claim-in rates will be much lower, equal to 1% or 5% depending on whether the student-athlete experienced a concussion that resolved (5%) or none at all (1%). As the Proposed Class Settlement is limited to medical monitoring related to specific diseases or conditions, it is much less likely that a Settlement Class Member will opt to take the Screening Questionnaire if they did not suffer a concussion or do not exhibit unresolved symptoms.

The Proposed Class Settlement provides that Settlement Class Members can be screened multiple times and can receive two Medical Evaluations over the course of the 50 year Fund.²⁰ I refer to this as a “comeback” rate. I assume that 15% of Settlement Class Members who elect to fill out the Screening Questionnaire and do not qualify for a Medical Evaluation will elect to retake the Screening Questionnaire, and that 15% of Qualifying Class Members that receive a Medical Evaluation once will elect to get a second Medical Evaluation.

²⁰ Class members may receive more than two Medical Evaluations if specifically approved by the Medical Science Committee.

Table 4 summarizes the estimated number Screening Questionnaires, Supplemental Depression Screenings, and Medical Evaluations.

Table 4. Estimated Number of Screening Questionnaires, Supplemental Depression Screenings, and Medical Evaluations

			Qualifying Class Member Claim-in Rate									
			15%				25%					
			Non-Qualifying		Qualifying	Total	Non-Qualifying		Qualifying	Total		
			Not Concussed	Concussed - Resolved	Concussed - Unresolved		Not Concussed	Concussed - Resolved	Concussed - Unresolved			
Unresolved Concussion Rate	5%	Settlement Class Member Population	3,894,386	309,257	16,277		4,219,919	3,894,386	309,257	16,277		4,219,919
		Initial Claim-in Rate	1%	5%	15%			1%	5%	25%		
		Initial Number of Claim-ins	38,944	15,463	2,441		56,848	38,944	15,463	4,069		58,476
		Comeback Rate	15%	15%	15%			15%	15%	15%		
		Number of Rescreens/Retests	5,842	2,319	366		8,527	5,842	2,319	610		8,771
		Screening Questionnaires	44,785	17,782	2,441		65,009	44,785	17,782	4,069		66,637
	Supplemental Depression Screenings	3,359	1,334	0		4,693	3,359	1,334	0		4,693	
		Medical Evaluations	0	0	2,808		2,808	0	0	4,680		4,680
	7.5%	Settlement Class Member Population	3,894,386	301,118	24,415		4,219,919	3,894,386	301,118	24,415		4,219,919
		Initial Claim-in Rate	1%	5%	15%			1%	5%	25%		
		Initial Number of Claim-ins	38,944	15,056	3,662		57,662	38,944	15,056	6,104		60,104
		Comeback Rate	15%	15%	15%			15%	15%	15%		
		Number of Rescreens/Retests	5,842	2,258	549		8,649	5,842	2,258	916		9,016
		Screening Questionnaires	44,785	17,314	3,662		65,762	44,785	17,314	6,104		68,203
		Supplemental Depression Screenings	3,359	1,299	0		4,657	3,359	1,299	0		4,657
Medical Evaluations		0	0	4,212		4,212	0	0	7,019		7,019	

Medical Evaluation Cost Estimate

I next estimated the cost of Medical Evaluations based on the number of Qualifying Class Members who claim-in to the Proposed Class Settlement.

The Medical Evaluations are designed to be performed in person at designated Program Locations.²¹ The evaluation will be performed by a physician who will follow guidelines established by the Medical Science Committee. The exact testing protocol, and the cost per person for that testing protocol, has not been finally determined. Estimates presented in this Class Action to date range from \$822²² up to \$3,016.²³

Qualifying Class Members residing more than 100 miles from a Program Location will be eligible for reimbursement from the Fund for their driving expenses to and from a Program Location; alternatively, they may obtain a Medical Evaluation from another provider and be reimbursed for out-of-pocket Medical Evaluation expenses, not to exceed the average cost of Medical Evaluations within the Medical Monitoring Program. Based on an analysis by the

²¹ Amended Class Action Settlement Agreement and Release, Section IV. B. 5.

²² Expert Report of Robert C. Cantu, M.A., M.D., F.A.C.S., F.A.C.S.M., *Arrington v. National Collegiate Athletic Association*, No. 1:11-cv-06356 (N.D. Ill.) (Docket # 180).

²³ Represents weighted-average for PCS and CTE as presented in the Expert Report of Bruce Deal (Dkt. #160). Mr. Deal assumes that any class member who qualifies for a medical monitoring evaluation will, in addition to receiving a PCS or CTE test, receive a magnetic resonance imaging test ("MRI"). While I understand that there is little or no medical basis or necessity for performing MRI's as part of the prescribed medical monitoring called for by the Settlement Agreement, I also recognize that Mr. Deal has factored the cost of such testing in to his analysis. To be conservative, I have included Mr. Deal's test cost figure in my adequacy analysis.

Garretson Resolution Group, approximately 30% of the Settlement Class Member population lives greater than 100 miles from the nearest proposed Program Location, and only 20% of these Settlement Class Members live more than 200 miles from the nearest proposed Program Location. Presumably, at least some of these Settlement Class Members will opt to receive a Medical Evaluation from another provider and request reimbursement for out-of-pocket expenses. To the extent insurance covers some or all of the cost of these Medical Evaluations, thereby reducing reimbursable out-of-pocket expenses, the cost to the Fund for these Settlement Class Members may be significantly less than if the Settlement Class Members received a Medical Evaluation at a Program Location.

For purposes of my analysis, I conservatively assume that 30% of Qualifying Class Members that claim-in live greater than 100 miles from the nearest Program Location and will opt to drive to the nearest Program Location and request mileage reimbursement. I assume the average round trip mileage for these Settlement Class Members is 400 miles. The 2015 standard mileage rate issued by the IRS for medical purposes is \$0.23.²⁴ Based on these inputs, 30% of Settlement Class Members will be reimbursed an average of \$92 in today's dollars. I assume standard mileage rates will increase at an annual rate of 2.76% based on the compound annual growth rate over the last 10 years.²⁵

Table 5 summarizes the Medical Evaluation Costs in nominal dollars, including mileage reimbursement. I assume that the annual inflation rate of Medical Evaluations will be 3.45% per the Consumer Price Index for Medical Care published by the Bureau of Labor Statistics.²⁶

Table 5. Medical Evaluation Costs Including Mileage Reimbursement

		Initial Medical Evaluation Test Costs	Qualifying Class Member Claim-in Rate	
			15%	25%
Unresolved Concussion Rate	5%	\$822	\$4,399,246	\$7,332,077
		\$1,968	\$10,360,837	\$17,268,062
		\$3,016	\$15,811,910	\$26,353,183
	7.5%	\$822	\$6,598,869	\$10,998,116
		\$1,968	\$15,541,256	\$25,902,093
		\$3,016	\$23,717,865	\$39,529,775

I developed a model for when, during the 50 year Fund duration, Qualifying Class Members would receive a Medical Evaluation and retest, as appropriate. I expect that the number of Medical Evaluations will generally be at highest levels in the earliest years of the

²⁴ "New Standard Mileage Rates Now Available; Business Rate to Rise in 2015." *Internal Revenue Service*. Dec. 10, 2014. Web. 31 Mar. 2015. <<http://www.irs.gov/uac/Newsroom/New-Standard-Mileage-Rates-Now-Available;-Business-Rate-to-Rise-in-2015>>.

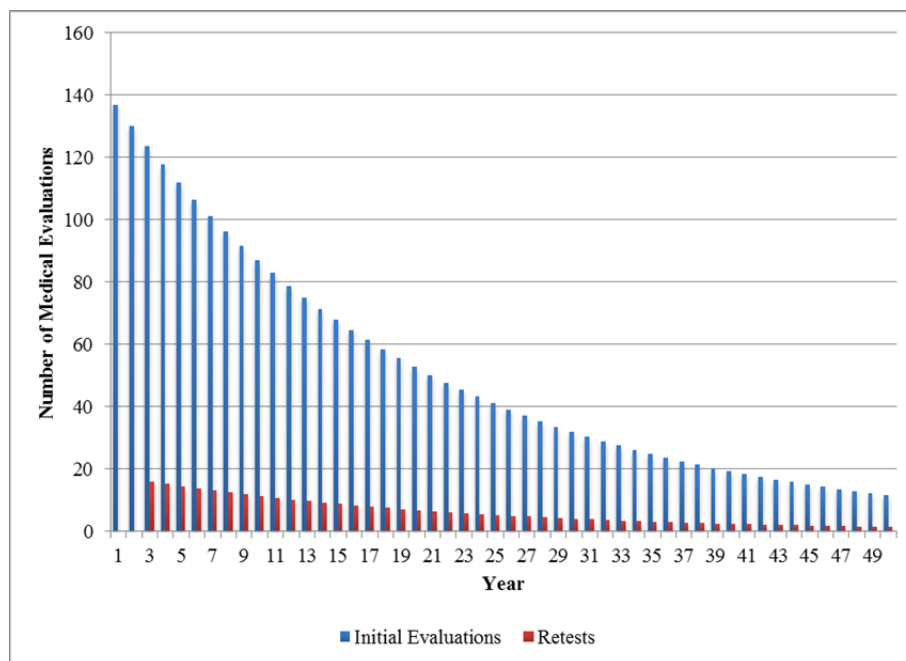
²⁵ "Standard Mileage Rates." *Internal Revenue Service*. Web. 31 Mar. 2015. <<http://www.irs.gov/Tax-Professionals/Standard-Mileage-Rates>>.

²⁶ "Consumer Price Index – All Urban Consumers: Medical Care." *Bureau of Labor Statistics 2005-2014 Inflation Rates*. Web. 4 Mar. 2015. <<http://www.bls.gov/data>>.

Fund and will taper off over time, as observed in the Fernald Medical Monitoring Program. The timing model I applied is based on an exponential distribution ($\lambda=.05$), which extrapolates the anticipated claims over time such that the filings peak in the first year and tail off thereafter. I estimated the number of Screening Questionnaires and related costs per year using the same methodology.

Table 6 summarizes the proportion of Medical Evaluations that will occur in each year, including retests.²⁷

Table 6. Medical Evaluations



²⁷ The number of Medical Evaluations varies based on unresolved concussion rate and claim-in rate but follows the same curve.

Other Costs

In addition to the Medical Evaluation costs, the Fund will also be used to pay attorneys' fees to class counsel, notice costs, screening costs including Supplemental Depression Screening, and other costs associated with administering the Medical Monitoring Program. Certain costs, such as costs associated with the initial screenings and Supplemental Depression Screenings, vary based on the sensitivity presented herein. Table 7 summarizes all estimated Other Costs.

Table 7. Other Costs

Category	Cost
<i>Class Representatives, Class Counsel, and Medical Science Committee</i>	
Service Awards	\$72,500
Attorneys' Fee	\$15,000,000
Attorneys' Expenses	\$750,000
Lead Counsel Continuing Costs	\$500,000
Medical Science Committee*	\$3,862,500
Class Representatives, Class Counsel, and Medical Science Committee Subtotal	\$20,185,000
<i>Notice Costs (Per Declaration of Alan Vasquez)</i>	
Class Member Notification Costs	\$1,769,137
Notice Costs Subtotal	\$1,769,137
<i>Administrative Costs (per Garretson Resolution Group)</i>	
Program Initiation, Class Member Registration, and Opt Out Processing	\$576,536
Provider Network Setup and Maintenance	\$2,367,480
IT Setup and Maintenance	\$1,917,834
Screening & Evaluation Costs**	\$3,000,912 - \$3,610,894
Administrative Costs Subtotal	\$7,862,762 - \$8,472,744
Use of Funds Excluding Medical Evaluations Total	\$29,816,899 - \$30,426,881

*Estimate per NCAA counsel over life of Fund.

**Garretson Resolution Group estimates are based on a projected number of Screening Questionnaires, Supplemental Depression Screenings, and Medical Evaluations. Estimates have been adjusted to reflect my projected number of Screening Questionnaires, Supplemental Depression Screenings, and Medical Evaluations.

B. Fund Adequacy Analysis

In order to assess Fund adequacy, I analyzed a range of potential outcomes. Three variables have a significant impact on Fund adequacy because they drive the total cost of Medical Evaluations *and* are inherently uncertain. These variables are: (1) unresolved concussion rate as determined by the Screening Questionnaire; (2) claim-in rate; and (3) Medical Evaluation costs. To reflect this uncertainty, I incorporated into my analysis a range for these inputs in order to present a range of potential Fund adequacy sensitivities. These inputs are summarized in Table 8 below.

Table 8. Variable Inputs

Category	Low	Mid	High
Unresolved Concussion Rate	5%	n/a	7.5%
Claim-in Rates			
Unresolved Concussion	15%	n/a	25%
Medical Evaluation Costs	\$822	\$1,968	\$3,016

For purposes of these sensitivity analyses, I held other inputs constant either because they are relatively certain or because they don't drive significant costs. These inputs are summarized in Table 9 below.

Table 9. Fixed Inputs

Category	Input
Unreported Concussion Rate	10.00%
Claim-in Rates	
Resolved Concussion	5.00%
Not Concussed	1.00%
Comeback Rate	15.00%
Supplemental Depression Screening	7.50%
Medical Evaluation Inflation Rate	3.45%
Interest Earned on Funds	3.00%
Settlement Class Members > 100 miles	30.00%
Average Reimbursed Miles	400
Medical Mileage Reimbursement Rate	\$0.23
Mileage Reimbursement Inflation Rate	2.76%

Utilizing the inputs and related values shown in Tables 8 and 9 above, Table 10 presents five sensitivities to assess Fund adequacy. Each of these sensitivities should be considered conservative, and each demonstrates the expected adequacy of the Fund.

Table 10. Fund Adequacy

	Category	Sensitivity 1	Sensitivity 2	Sensitivity 3	Sensitivity 4	Sensitivity 5
Inputs	Unresolved Concussion Rate	5%	5%	5%	7.5%	7.5%
	Claim-in Rates					
	Unresolved Concussion	15%	15%	25%	25%	25%
	Medical Evaluation Costs					
	Initial Evaluation	\$822	\$1,968	\$1,968	\$1,968	\$3,016
	Retest	\$822	\$1,968	\$1,968	\$1,968	\$3,016
Outputs	Number of Screening Questionnaires	65,009	65,009	66,637	68,203	68,203
	Number of Supplemental Depression Screenings	4,693	4,693	4,693	4,657	4,657
	Number of Medical Evaluations	2,808	2,808	4,680	7,019	7,019
	Medical Evaluation & Mileage Reimbursement Costs	\$4,399,246	\$10,360,837	\$17,268,062	\$25,902,093	\$39,529,775
	Other Costs	\$29,816,899	\$29,816,899	\$30,096,583	\$30,426,881	\$30,426,881
	Total Remaining in Fund After Year 50	\$123,185,489	\$108,305,109	\$90,359,880	\$67,976,409	\$34,681,387
Fund Adequacy		Adequate	Adequate	Adequate	Adequate	Adequate

IV. Overall Conclusions and Opinions

Based on my analysis and the assumptions included herein, I conclude that the Fund will be adequate for providing Settlement Class Members the Medical Monitoring benefits outlined in the Proposed Class Settlement.



Ross I. Mishkin

Attachment 1

Data and Documents Considered

I. Motions, declarations, and other documents related to *Arrington v. National Collegiate Athletic Association*, No. 11-cv-06356 (N.D. Ill.) (Docket No. 180).

1. *Arrington v. National Collegiate Athletic Association*, Amended Complaint
11/21/2011
2. *Arrington v. National Collegiate Athletic Association*, Report of Robert C. Cantu, M.A., M.D., F.A.C.S., F.A.C.S.M.
7/19/2013

II. Motions, declarations, and other documents related to *In Re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*, MDL No. 2492. Master Docket No. 1:13-cv-09116

1. *In Re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*, Expert Report of Bruce Deal Regarding the Medical Monitoring Fund
7/28/2014
2. *In Re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*, Plaintiffs' Amended Motion For Preliminary Approval of Amended Class Settlement and Certification of Settlement Class
10/20/2014
3. *In Re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*, Transcript of Proceedings Motion Before the Honorable John Z. Lee
10/23/2014
4. *In Re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation*, Transcript of Proceedings – Motion Before the Honorable John Z. Lee
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12/17/2014
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4/14/2015
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4/14/2015

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EDUCATION

MBA (with honors)
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Ross Mishkin is a Managing Director with The Claro Group located in Chicago. Ross specializes in providing complex claims consulting related to commercial insurance disputes and class actions. Ross has assisted many corporations and their legal counsel on a variety of complex litigation matters and class actions, including damages calculations, insurance claim allocations, insurance offsets in CERCLA recovery cases, retrospective premium plan calculations, insurance receivable reserving analyses, statistical sampling, and claims exposure estimations.

Ross is a recognized expert preparing damages calculations and allocating damages to historical general liability insurance programs in complex insurance claims. He has performed damages analyses and developed allocation analyses in both an expert and consulting capacity based on various state and federal jurisdictions across the country.

Ross has extensive experience analyzing and evaluating insurance programs dating back to the 1940's through today, including coverage with retrospective premium plans, fronting arrangements, and captive programs.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

- Extensive experience with many clients reviewing and analyzing historical transaction and claims data from disparate sources and systems. Review has included millions of transactions and documents relating to individual liability claims and class actions. Performed analyses to assist clients in identifying, quantifying and categorizing activities, including statistical procedures and future claim estimates.
- Managed many complex environmental and product liability claims projects for Fortune 1000 companies, involving more than \$3 billion of exposures. Engagements regularly include quantifying incurred and paid damages, developing future liability estimates, and building models to allocate claims and exposures to historical general liability insurance policy programs.
- Regularly retained as an expert relating to quantifying damages amounts relating to insurance claim disputes and allocating those damages to insurance policies. Significant experience with asbestos products and premises claims, environmental property damage claims, other bodily injury claims including silicone breast implants, silica, and beryllium, as well as residual value automotive lease claims.
- Provided expert claims and allocation services in a mediation related to hundreds of product liability claims for a large chemicals company. Quantified the incurred claim amounts and allocated those claims to four primary insurers participating in the mediation.
- Assisted a specialty chemicals company to settle its outstanding bodily-injury insurance claims with several dozen insurers. Developed and executed claims allocations for several cash buyout settlements and one comprehensive coverage-in-place settlement agreement. Provide ongoing insurance claim allocation services for all of the coverage-in-place participants.

TESTIMONY / EXPERT RETENTIONS

- *Duchossois Industries, Inc., et al. v. Allianz Underwriters Insurance Company, et al, Circuit Court of DuPage County, Illinois --- Case No. 94 MR 0535*
Testifying expert to quantify and allocate to insurance coverage claim amounts related to more than 20 third-party facilities related to an environmental property damage insurance lawsuit.
- *Tribune Company, et al. v. Allstate Insurance Company, et al, Circuit Court of Cook County, Chancery Division --- Case No. 94 CH 1573*
Testifying expert to quantify claim amounts at one owned facility related to an environmental property damage and bodily injury insurance lawsuit.
- *Reliance Insurance Company vs. Keybank USA, National Association vs. Swiss Reinsurance America Corporation, et al, US District Court for the Northern District of Ohio Eastern Division --- Case No. 1:01 CV 062*
Testifying expert to quantify damages amounts and changes to damages amounts submitted under residual value insurance policies related to a retail automotive vehicle leasing business.
- *Brush Wellman Inc vs. Certain Underwriters at Lloyds, and Certain London Market Insurance Companies, et al, Court of Common Pleas of Ottawa County, Ohio --- Case No. 03-CVH-089*
Testifying expert to quantify and estimate damage amounts relating to beryllium products bodily injury claims, and to allocate those damage amounts to historical general liability insurance coverage.
- *Combustion Engineering 524(g) Asbestos PI Trust v. Allianz Global Risks US Insurance Company, et al, Superior Court of the State of Delaware in and for New Castle County*
Testifying expert to quantify and allocate asbestos products bodily injury damage amounts to historical general liability insurance coverage.
- *American Optical Corporation, Warner Lambert LLC, W-L LLC vs. Admiral Insurance Company, et al, Superior Court of New Jersey Law Division: Union County Docket No: UNN-L-2505 01*
Testifying expert to quantify outstanding claims, determine policy exhaustions, and allocate asbestos products bodily injury damage amounts to historical general liability insurance coverage. Allocated claims under Massachusetts and New Jersey laws.
- *In re Dow Corning Corporation, Case No. 95-CV-20512 DT*
Testifying expert to evaluate a claim for reimbursement made against Dow Corning by certain of its historical insurers, relating to an existing settlement agreement. Performed historical and potential future claims allocations scenarios, analyzing the effect of certain reimbursement provisions in the settlement agreement.
- *McKesson Corporation v. Univar USA Inc., Case No. 74 489 Y 01220 07JRJ*
Testifying expert, in an arbitration, to review distribution company's historical product sales data and shipping records to calculate quantities of material sold in a breach of contract matter.

- *Navcom Defense Electronics, Inc. v. Gould Electronics Inc. et al, Superior Court of the State of California County of Los Angeles – Central Civil West; Case No.: BC374697*
Testifying expert to analyze a claim for indemnification relating to environmental liabilities under a purchase and sale agreement. Calculated relevant expenditures and evaluated claim valuation under various indemnification scenarios.
- *York International Corporation vs. Liberty Mutual Insurance Company In the United State District Court for the Middle District of Pennsylvania; Case No. 1:10-CV-00692-SHR*
Testifying expert to accumulate and quantify asbestos bodily injury claims allocable to certain primary insurance policies. Calculated reimbursements recoveries from other insurers.
- *Bridgestone Americas Tire Operations, LLC f/k/a Bridgestone/Firestone North America Tire, LLC vs. AIU Insurance Company, et al, in the Court of Common Pleas Summit County, Ohio ; Case No. 08-07-5163*
Testifying expert to accumulate and quantify asbestos bodily injury claims (both products and premises claims) allocable to certain excess insurance policies.
- *Appleton Papers Inc. and NCR Corporation v. George A. Whiting Paper Company, et al.*
Represented joint defense group; testifying expert to determine how much, if any, offsets were appropriate relating to a CERCLA PRP contribution action where parties had already entered into significant insurance settlements.
- *Jean Smith and Lorie Ivie et al v. United American Insurance Company et al; In the Circuit Court of Saline County, Arkansas; Civil Action No. CV 2004-742-2*
Class Counsel expert to evaluate and analyze the value of insurance policy products offered to each member of the Class as part of a Class Settlement. Analyzed settlement values for more than 45,000 individual Class claimants.
- *Columbia Casualty Company and Continental Insurance Company vs. 3M Company, et al; State of Minnesota, County of Ramsey, Second Judicial District Court; File No.62-C2-07-2419*
Testifying expert to accumulate and quantify asbestos bodily injury claims (both asbestos-containing products and respirator claims) allocable to certain excess insurance policies. Performed statistical analysis to verify the accuracy and reliability of claims information including exposure dates. Case involved more than 400,000 individual claimants.
- *U.S. Silica Company v. ACE Fire Underwriters Insurance Company, et al, in the Circuit Court of Morgan County, West Virginia, Case No. 06-C-2*
Testifying expert to quantify and allocate recoverable silica bodily injury claims to certain primary insurance policies. Performed statistical analysis to verify the accuracy and reliability of claims information including exposure dates.

- *Sonic Automotive, Inc. v. Chrysler Insurance Company, et al., in the United States District Court For the Southern District of Ohio Western Division, Case No. 10-cv-717*

Testifying expert to allocate damages to insurance policies relating to the settlement of two underlying class actions alleging errors and omissions in connection with the financing of automotive purchases and leases over several years. Scope included estimation of redemption rates and total class benefit for one class, as the redemption period remained open as of the date of my report. Case involved allocation of damages related to more than 160,000 class members with various class benefits and transaction dates.

- *Ashland Inc. and Hercules Incorporated v. National Indemnity Company and Resolute Management Inc., Commonwealth of Kentucky Fayette Circuit Court, Case No.: 12-CI-4638*

Testifying expert regarding allocation, administration, and historical course of dealings relating to a coverage-in-place agreement between the parties.

Attachment 3

	Participation Data per NCAA (1981-2014) ^{1,2,3}					Estimated New Participants By Year (1925-2015) ^{4,5}					Estimated Surviving New Participants By Year (1925-2015) ⁹				
	Men's Sports		Women's Sports		Total Participation	Men's Sports ⁶		Women's Sports ^{7,8}		Total New Participants	Men's Sports		Women's Sports		Total Surviving New Participants
	[A]	[B]	[C]	[D]		[F]	[G]	[H]	[I]		[K]	[L]	[M]	[N]	
	Contact	Non-Contact	Contact	Non-Contact	[E]=[A]+[B]+[C]+[D]	Contact	Non-Contact	Contact	Non-Contact	[J]=[F]+[G]+[H]+[I]	Contact	Non-Contact	Contact	Non-Contact	[O]=[K]+[L]+[M]+[N]
1925-1926						181	5,446			5,627	0	1			1
1926-1927						588	5,777			6,365	0	2			2
1927-1928						995	6,109			7,103	1	5			6
1928-1929						1,402	6,440			7,842	2	8			10
1929-1930						1,809	6,771			8,580	4	15			19
1930-1931						2,216	7,102			9,318	8	26			34
1931-1932						2,623	7,434			10,056	15	43			58
1932-1933						3,029	7,765			10,794	27	69			96
1933-1934						3,436	8,096			11,532	46	108			154
1934-1935						3,843	8,427			12,270	76	166			242
1935-1936						4,250	8,758			13,009	120	248			368
1936-1937						4,657	9,090			13,747	184	359			543
1937-1938						5,064	9,421			14,485	272	506			778
1938-1939						5,471	9,752			15,223	389	693			1,082
1939-1940						5,878	10,083			15,961	538	923			1,461
1940-1941						6,285	10,414			16,699	722	1,197			1,919
1941-1942						6,692	10,746			17,438	944	1,516			2,460
1942-1943						7,099	11,077			18,176	1,205	1,880			3,085
1943-1944						7,506	11,408			18,914	1,503	2,284			3,787
1944-1945						7,913	11,739			19,652	1,838	2,726			4,564
1945-1946						8,320	12,070			20,390	2,207	3,202			5,409
1946-1947						8,727	12,402			21,128	2,608	3,706			6,314
1947-1948						9,134	12,733			21,867	3,038	4,236			7,274
1948-1949						9,541	13,064			22,605	3,495	4,786			8,281
1949-1950						9,948	13,395			23,343	3,975	5,353			9,328
1950-1951						10,355	13,726			24,081	4,475	5,932			10,407
1951-1952						10,762	14,058			24,819	4,991	6,519			11,510
1952-1953						11,168	14,389			25,557	5,520	7,111			12,631
1953-1954						11,575	14,720			26,296	6,059	7,705			13,764
1954-1955						11,982	15,051			27,034	6,608	8,301			14,909
1955-1956						12,389	15,383			27,772	7,164	8,895			16,059
1956-1957						12,796	15,714			28,510	7,724	9,485			17,209
1957-1958						13,203	16,045			29,248	8,286	10,070			18,356
1958-1959						13,610	16,376			29,986	8,850	10,649			19,499
1959-1960						14,017	16,707			30,724	9,415	11,222			20,637
1960-1961						14,424	17,039			31,463	9,980	11,789			21,769
1961-1962						14,831	17,370			32,201	10,543	12,348			22,891
1962-1963						15,238	17,701			32,939	11,105	12,900			24,005
1963-1964						15,645	18,032			33,677	11,664	13,443			25,107
1964-1965						16,052	18,363			34,415	12,221	13,980			26,201
1965-1966						16,459	18,695			35,153	12,775	14,510			27,285
1966-1967						16,866	19,026			35,892	13,325	15,032			28,357
1967-1968						17,273	19,357			36,630	13,871	15,545			29,416
1968-1969						17,680	19,688			37,368	14,413	16,050			30,463
1969-1970						18,087	20,019			38,106	14,950	16,548			31,498
1970-1971						18,494	20,351			38,844	15,484	17,038			32,522
1971-1972						18,901	20,682			39,582	16,014	17,523			33,537
1972-1973						19,307	21,013			40,321	16,541	18,003			34,544
1973-1974						19,714	21,344			41,059	17,067	18,478			35,545
1974-1975						20,121	21,676			41,797	17,590	18,949			36,539
1975-1976						20,528	22,007			42,535	18,111	19,415			37,526
1976-1977						20,935	22,338			43,273	18,628	19,876			38,504
1977-1978						21,342	22,669			44,011	19,142	20,332			39,474
1978-1979						21,749	23,000			44,750	19,651	20,782			40,433
1979-1980						22,156	23,332			45,488	20,157	21,226			41,383
1980-1981						22,563	23,663			46,226	20,658	21,664			42,322
1981-1982	80,964	88,836	20,164	53,566	243,530	22,851	25,073	20,164	107,132	175,220	21,044	23,090	19,121	50,794	114,049
1982-1983	87,761	92,474	21,875	58,165	260,275	24,769	26,099	6,174	16,416	73,459	22,933	24,165	5,904	15,699	68,702
1983-1984	91,493	97,101	23,034	61,779	273,407	25,823	27,405	6,501	17,436	77,165	24,026	25,499	6,236	16,726	72,487
1984-1985	97,488	103,575	24,827	66,852	292,742	27,515	29,233	7,007	18,868	82,622	25,714	27,320	6,740	18,150	77,924
1985-1986	99,091	100,940	25,528	69,823	295,382	27,967	28,489	7,205	19,707	83,367	26,243	26,733	6,949	19,005	78,930
1986-1987	95,491	94,526	24,162	66,693	280,872	26,951	26,679	6,819	18,823	79,272	25,384	25,128	6,592	18,197	75,301
1987-1988	88,520	90,421	23,642	66,183	268,766	24,984	25,520	6,673	18,679	75,855	23,611	24,118	6,464	18,096	72,290
1988-1989	89,629	90,516	24,166	67,243	271,554	25,297	25,547	6,821	18,978	76,642	23,982	24,219	6,621	18,423	73,244
1989-1990	88,826	88,340	23,729	65,483	266,378	25,070	24,933	6,697	18,482	75,181	23,835	23,705	6,513	17,972	72,025
1990-1991	92,848	91,747	24,867	67,911	277,373	26,205	25,894	7,018	19,167	78,285	24,980	24,684	6,836	18,669	75,169
1991-1992	92,790	93,257	25,670	70,799	282,516	26,189	26,320	7,245	19,982	79,736	25,025	25,151	7,067	19,492	76,735
1992-1993	93,145	93,893	27,005	72,854	286,897	26,289	26,500	7,622	20,562	80,973	25,177	25,379	7,445	20,085	78,086
1993-1994	94,533	95,109	28,712	76,820	295,174	26,681	26,843	8,104	21,681	83,309	25,605	25,761	7,925	21,204	80,495
1994-1995	96,072	92,933	31,462	79,062	299,529	27,115	26,229	8,880	22,314	84,538	26,072	25,220	8,694	21,847	81,833
1995-1996	103,187	105,787	36,513	93,569	339,056	29,123	29,857	10,305	26,409	95,694	28,054	28,761	10,100	25,882	92,797
1996-1997	102,804	100,404	38,360	92,335	333,903	29,015	28,338	10,827	26,060	94,239	27,997	27,344	10,621	25,565	91,527
1997-1998	103,001	100,688	39,987	95,193	338,869	29,071	28,418	11,286	26,867	95,641	28,097	27,466	11,081	26,380	93,024
1998-1999	106,733	104,635	43,017	105,830	360,215	30,124	29,532	12,141	29,869	101,666	29,161	28,587	11,931	29,351	99,030

Attachment 4

	Estimated Surviving New Participants By Year (1925-2015) ¹					Estimated Surviving Concussed Participants By Year (1925-2015) ^{1,2,3}					Estimated Surviving Non-Concussed Participants By Year (1925-2015)				
	Men's Sports		Women's Sports		Total Surviving New Participants [E]=[A]+[B]+[C]+[D]	Men's Sports		Women's Sports		Total Surviving Concussed Participants [J]=[F]+[G]+[H]+[I]	Men's Sports		Women's Sports		Total Surviving Non-Concussed Participants [O]=[K]+[L]+[M]+[N]
	[A]	[B]	[C]	[D]		[F]	[G]	[H]	[I]		[K]=[A]-[F]	[L]=[B]-[G]	[M]=[C]-[H]	[N]=[D]-[I]	
	Contact	Non-Contact	Contact	Non-Contact		Contact	Non-Contact	Contact	Non-Contact		Contact	Non-Contact	Contact	Non-Contact	
1925-1926	0	1			1	0	0			0	0	1			1
1926-1927	0	2			2	0	0			0	0	2			2
1927-1928	1	5			6	0	0			0	1	5			6
1928-1929	2	8			10	0	0			0	2	8			10
1929-1930	4	15			19	1	0			1	3	15			18
1930-1931	8	26			34	1	0			1	7	26			33
1931-1932	15	43			58	2	1			3	13	42			55
1932-1933	27	69			96	4	1			5	23	68			91
1933-1934	46	108			154	6	1			8	40	107			146
1934-1935	76	166			242	11	2			13	65	164			229
1935-1936	120	248			368	17	3			20	103	245			348
1936-1937	184	359			543	26	5			31	158	354			512
1937-1938	272	506			778	38	7			45	234	499			733
1938-1939	389	693			1,082	54	9			64	335	684			1,018
1939-1940	538	923			1,461	75	12			88	463	911			1,373
1940-1941	722	1,197			1,919	101	16			117	621	1,181			1,802
1941-1942	944	1,516			2,460	132	20			152	812	1,496			2,308
1942-1943	1,205	1,880			3,085	169	25			194	1,036	1,855			2,891
1943-1944	1,503	2,284			3,787	210	30			241	1,293	2,254			3,546
1944-1945	1,838	2,726			4,564	257	36			293	1,581	2,690			4,271
1945-1946	2,207	3,202			5,409	309	42			351	1,898	3,160			5,058
1946-1947	2,608	3,706			6,314	365	49			414	2,243	3,657			5,900
1947-1948	3,038	4,236			7,274	425	56			481	2,613	4,180			6,793
1948-1949	3,495	4,786			8,281	489	63			553	3,006	4,723			7,728
1949-1950	3,975	5,353			9,328	557	71			627	3,418	5,282			8,701
1950-1951	4,475	5,932			10,407	627	78			705	3,848	5,854			9,702
1951-1952	4,991	6,519			11,510	699	86			785	4,292	6,433			10,725
1952-1953	5,520	7,111			12,631	773	94			867	4,747	7,017			11,764
1953-1954	6,059	7,705			13,764	849	102			950	5,210	7,603			12,814
1954-1955	6,608	8,301			14,909	925	110			1,035	5,683	8,191			13,874
1955-1956	7,164	8,895			16,059	1,003	117			1,121	6,161	8,778			14,938
1956-1957	7,724	9,485			17,209	1,082	125			1,207	6,642	9,360			16,002
1957-1958	8,286	10,070			18,356	1,160	133			1,293	7,126	9,937			17,063
1958-1959	8,850	10,649			19,499	1,239	141			1,380	7,611	10,508			18,119
1959-1960	9,415	11,222			20,637	1,319	148			1,467	8,096	11,074			19,170
1960-1961	9,980	11,789			21,769	1,398	156			1,553	8,582	11,633			20,216
1961-1962	10,543	12,348			22,891	1,477	163			1,639	9,066	12,185			21,252
1962-1963	11,105	12,900			24,005	1,555	170			1,725	9,550	12,730			22,280
1963-1964	11,664	13,443			25,107	1,633	177			1,811	10,031	13,266			23,296
1964-1965	12,221	13,980			26,201	1,712	185			1,896	10,509	13,795			24,305
1965-1966	12,775	14,510			27,285	1,789	192			1,981	10,986	14,318			25,304
1966-1967	13,325	15,032			28,357	1,866	198			2,065	11,459	14,834			26,292
1967-1968	13,871	15,545			29,416	1,943	205			2,148	11,928	15,340			27,268
1968-1969	14,413	16,050			30,463	2,018	212			2,230	12,395	15,838			28,233
1969-1970	14,950	16,548			31,498	2,094	218			2,312	12,856	16,330			29,186
1970-1971	15,484	17,038			32,522	2,168	225			2,393	13,316	16,813			30,129
1971-1972	16,014	17,523			33,537	2,243	231			2,474	13,771	17,292			31,063
1972-1973	16,541	18,003			34,544	2,317	238			2,554	14,224	17,765			31,990
1973-1974	17,067	18,478			35,545	2,390	244			2,634	14,677	18,234			32,911
1974-1975	17,590	18,949			36,539	2,463	250			2,714	15,127	18,699			33,825
1975-1976	18,111	19,415			37,526	2,536	256			2,793	15,575	19,159			34,733
1976-1977	18,628	19,876			38,504	2,609	262			2,871	16,019	19,614			35,633
1977-1978	19,142	20,332			39,474	2,681	268			2,949	16,461	20,064			36,525
1978-1979	19,651	20,782			40,433	2,752	274			3,026	16,899	20,508			37,407
1979-1980	20,157	21,226			41,383	2,823	280			3,103	17,334	20,946			38,280
1980-1981	20,658	21,664			42,322	2,893	286			3,179	17,765	21,378			39,143
1981-1982	21,044	23,090	19,121	50,794	114,049	2,947	305	3,123	2,413	8,787	18,097	22,785	15,998	48,381	105,261
1982-1983	22,933	24,165	5,904	15,699	68,702	3,212	319	964	746	5,241	19,721	23,846	4,940	14,954	63,461
1983-1984	24,026	25,499	6,236	16,726	72,487	3,365	337	1,019	794	5,514	20,661	25,162	5,218	15,931	66,972
1984-1985	25,714	27,320	6,740	18,150	77,924	3,601	361	1,101	862	5,925	22,113	26,959	5,639	17,288	71,999
1985-1986	26,243	26,733	6,949	19,005	78,930	3,675	353	1,135	903	6,066	22,568	26,380	5,814	18,103	72,864
1986-1987	25,384	25,128	6,592	18,197	75,301	3,555	332	1,077	864	5,828	21,829	24,796	5,516	17,332	69,473
1987-1988	23,611	24,118	6,464	18,096	72,290	3,307	318	1,056	860	5,540	20,304	23,800	5,409	17,237	66,750
1988-1989	23,982	24,219	6,621	18,423	73,244	3,359	320	1,081	875	5,635	20,623	23,899	5,539	17,547	67,610
1989-1990	23,835	23,705	6,513	17,972	72,025	3,338	313	1,064	854	5,568	20,497	23,392	5,449	17,119	66,457
1990-1991	24,980	24,684	6,836	18,669	75,169	3,498	326	1,117	887	5,827	21,482	24,358	5,720	17,782	69,342
1991-1992	25,025	25,151	7,067	19,492	76,735	3,505	332	1,154	926	5,917	21,520	24,819	5,913	18,566	70,818
1992-1993	25,177	25,379	7,445	20,085	78,086	3,526	335	1,216	954	6,031	21,651	25,044	6,229	19,131	72,055
1993-1994	25,605	25,761	7,925	21,204	80,495	3,586	340	1,294	1,007	6,227	22,019	25,421	6,631	20,197	74,268
1994-1995	26,072	25,220	8,694	21,847	81,833	3,651	333	1,420	1,038	6,442	22,421	24,887	7,274	20,809	75,391
1995-1996	28,054	28,761	10,100	25,882	92,797	3,929	380	1,650	1,229	7,187	24,125	28,381	8,450	24,653	85,610
1996-1997	27,997	27,344	10,621	25,565	91,527	3,921	361	1,735	1,214	7,231	24,076	26,983	8,886	24,351	8